Background:

<u>The Governor asked the IURC</u> to provide recommendations regarding five specific EE/DSM issues, specifically:

- 1. Include appropriate energy efficiency goals for Indiana;
- 2. Reflect an examination of the overall effectiveness of current DSM programs in the state;
- 3. Reflect any and all issues that may improve current DSM programs;
- 4. Reflect a thorough benefit-cost analysis of the cost impact to ratepayers of possible DSM programs; and
- 5. Allow for an opt-out whereby-large electricity consumers can decide not to participate in a DSM program.

This Appendix provides synthesizes the comments received by the Commission as they relate to the issues presented by the Governor. All comments are available for public viewing at this <u>link</u>.

Examination of Public Comments as Related to Governor's 5 EE/DSM Issues

An issue-by-issue examination of the public¹ comments received in relation to the Governor's five EE/DSM issues follows below.²

Issue 1: Public comments regarding appropriate energy efficiency goals for Indiana.

Advanced Energy Economy ("AEE")

 AEE points to the American Council for an Energy-Efficient Economy ("ACEEE"), which "estimated that a 1.5% annual energy efficiency standard in Indiana, implemented cost-effectively, would drop demand by over 5,800 GWh/year by 2020 [...]."

Broad Ripple Unlimited Group ("BRUG")

- The BRUG asks for a "forward thinking policy that furthers the work of past Indiana Energy Efficiency Programs."
- The BRUG also asks that the goals established in IURC Cause No. 42693 be reinstated.

Citizens Action Coalition of Indiana, Inc. ("CAC")

 CAC calls for a in a state energy efficiency resource standard (EERS), as defined by the American Council for an Energy-Efficiency Economy. An EERS provides safeguards regarding utilities meeting their planning obligations. Currently, half of all states have set mandatory long-term savings targets for utilities and other

¹ For the sake of brevity, some organization names are subsequently abbreviated after initial reference.

² A summary of the public comments received pursuant to GAO 2014-1

efficiency program administrators. CAC believes that a savings goal should be reinstated.

Cummins, Inc.

• ISO 50001 energy management standard conformity has proven to be an important improvement to Cummins' energy efficiency program. Cummins is offering to engage IURC and others in the state to help with the proliferation of ISO 50001. Cummins also recommends allow incentives to cover costs of ISO 50001 implementation, site training, technical consultation, auditing, and certification costs. Cummins provided the example of Germany's energy tax reduction of up to 90% for goods-producing companies that adopt ISO 50001.

E-mails/Letters

• A majority of the letters/comments received pursuant to GAO 2014-1 support adopting the standards set forth in IURC Cause No. 42693.

Honeywell Smart Grid Solutions

• Honeywell sets forth what the letter signatories believe Indiana's energy strategy should include: 1) Include appropriate energy efficiency goals, 2) Reflect an examination of the overall effectiveness of current DSM programs, 3) Reflect any and all issues that may improve current DSM programs, 4) Reflect a thorough benefit-cost analysis of the cost impact to ratepayers of possible DSM programs, and 5) Allow for an opt-out whereby large electricity consumers can decide not to participate in a DSM program. They go on to state that they "agree with the Governor's pursuit of an all-of-the-above energy strategy that includes the use of cost-effective energy efficiency."

Hoosier Environmental Council

Goals – especially ones that appear enforceable – are effective tools when it comes to energy efficiency programs. HEC provided data that it believes supports this statement. Specifically, it believes that data shows that the IOUs and IMPA showed exponential savings increases after the 2010 DSM mandate. HEC believes that Indiana's IOUs are not willing to set aggressive goals on their own and that a program like Energize Indiana successfully forced that.

■ Indiana Distributed Energy Alliance ("IndianaDG")

• Indiana should review the goals and objectives of the Public Utilities Regulatory Policy Act of 1978 when devising a policy for EE/DSM in Indiana.

Comments of 5 IOU's ("IOU's)

The utilities believe that reinstituting prescribed energy savings goals that ignore changing conditions is not prudent. Rather, the utilities recommend 1) using individual IRP results as a key part of the basis for energy efficiency decisions, 2) recognizing changing building codes and appliance efficiency standards, 3) considering rate impacts associated with energy efficiency programs, 4) requiring all Indiana retail electric utilities (not just jurisdictional utilities) to offer

comprehensive energy efficiency programs to customers, 5) eliminating any mandates to utilize third party administrators to deliver utilities' programs; and 6) focusing on demand response as well as energy efficiency. The utilities also feel that regulatory policies that work to overcome natural disincentives to utility pursuit of EE, by allowing for timely recovery of utilities' EE costs, including lost revenues, and offering incentives for successful EE programs.

• Indiana Industrial Energy Consumers, Inc. and Indiana Industrial Group ("Industrial Consumers"), also supported by Indiana Cast Metals Association

- Efficiency goals should address peak demand as well as usage reductions and should distinguish inefficiency and waste from economic development and load growth.
- Energy efficiency is advanced by support for private generation and competitive procurement standards.

Midwest Cogeneration Association ("MCA"), supported by MacAllister Power Systems

- MCA provides 6 CHP- and WHP-centric recommendations regarding EE goals, specifically 1) Recognize distributed CHP and WHP in all of Indiana's EE programs; 2) Eliminate unjustified and onerous standby charges (i.e. backup power during an unplanned generator outage); 3) Eliminate inequitable treatment of non-utility owned generation resources; 4) Extend Indiana's net-metering program to distributed CHP and WHP projects; 5) Include utilities' long-term costs in "avoided cost" calculations; and 6) Defray upfront capital costs that hinder CHP/WHP system usage.
- MCA points to the Baltimore Gas & Electric's Smart Energy Savers CHP/WHP program for the 2012-2014 EmPower Maryland energy efficiency program as a prominent, successful example.

Postcards

• The Commission received 550 pre-formatted postcards which all stated that Indiana should enact strong a strong EE policy that establishes statewide savings goal similar to those established in the December 2009 order in Cause No. 42693.

Issue 2: Public comments reflecting an examination of the overall effectiveness of current DSM programs in the state.

Benedict Inn Retreat & Conference Center ("Benedict Inn")

- Benedict Inn stated that they believe the arguments "for stopping energy efficiency efforts to be rather short-sited [sic.]."
- The Benedict Inn continues to provide four points, seemingly in support of EE:
 - Reduced energy usage means better quality of life.
 - Reduced energy use means less demand on the utilities.

- Reduced energy use means saving money.
- And study after study shows that new innovations stimulate the economy.

■ Circle Design Group, Inc. ("CDG")

• Circle Design Group, Inc. (CDG) expressed their displeasure, saying that "our Governor and our Legislators are terminating the Energize Indiana program" in a June 5, 2014 e-mail. The e-mail continues to note the benefits of energy conservation, that energy conservation is "here to stay," and that canceling any such energy conservation program is short-sighted.

Barbara Eden, Freeland Design

• Ms. Eden requests that the state of Indiana's energy efficiency program be reinstated, as she feels it is very important.

■ E-mails/Letters

• 61% of letters/e-mail received pursuant to GAO 2014-1 expressed disappointment that Energizing Indiana was discontinued.

Indiana Electric Cooperatives ("IEC")

- Hoosier Energy estimates that there has been 1.7 million MWh of savings through
 its DSM portfolio of programs while reducing summer demand 31 MW and
 winter demand by 51 MW. The value of this program is based on total resource
 cost cost/benefit analysis, resulting in an estimated \$2.32 avoided cost value for
 every \$1 invested in DSM programs.
- Wabash Valley Power has successfully included DSM resources since 1981. It began energy efficiency programs in 2010. It evaluates its EE programs by comparing program costs to the expected cost of a market-based resource, as well as TRC test. To date, the POWER MOVES programs have saved 85,000 MWhs since 2010. The POWER MOVES residential initiative includes a refrigerator/freezer removal program, an air source heat pump rebate, a geothermal heat pump rebate, Touchstone home program, CFL discount program, LED security lights. The program's commercial and industrial initiative includes lighting retrofit incentives, HVAC retrofit incentives, schools retrofit program, agricultural retrofit program, C&I custom retrofit program, and a business new construction program.

IUPUI Lugar Center for Renewable Energy

 Provides <u>comments</u> in the form of a survey of electric rate structures across the United States compiled in 2013 as part of a research project. The survey illustrates a reasonably comprehensive sample of different rate structures and is offered as ideas and examples for consideration in the Commission's deliberation regarding DSM.

Issue 3: Public comments reflecting any and all issues that may improve current DSM programs.

Advanced Energy Economy ("AEE")

- EE went on to recommend that "[t]o ensure continuity in program delivery, customer engagement and private industry investment, the IURC should expedite approval of regulatory filings aimed at continuing EE/DSM programs in 2015. The goal should be to complete approvals by September 1, 2014, to minimize disruption among consumers and market providers by allowing program implementation contractors sufficient time to transition and/or startup programs.
- AEE also recommends that the Commission hire an experienced, impartial 3rd party to conduct "a rigorous assessment of the market potential for cost effective energy efficiency programs in Indiana."
- Based on its experience, AEE further recommends the development of a well-defined binding target for cost effective energy efficiency deployment.
- Additionally, AEE recommends either copying or expanding the natural gas DSM oversight board model to include electricity.
- AEE also recommends including risk mitigation in IRP investment decisions, in order for the Commission to "ensure they are performing their fiduciary duty to not only choose the least cost resource, but also mitigate consumer risk of increasing energy costs in the future."
- AEE recommends establishing lifecycle savings goals as well as annual incremental goals within the DSM portfolio.
- AEE also believes that the Commission should establish incentives "including lost revenue recovery plus a bonus structure that rewards the utility and their investors for achieving, and exceeding, energy efficiency goals. The AEE states that these bonus objectives should be "to make energy efficiency investments attractive for the utility business model."

Broad Ripple Unlimited Group

 Asks that "an independent, non-profit third party administrator to oversee the program."

Citizens Action Coalitions of Indiana

- CAC has long maintained that an independent third-party administrator that reports directly to the Commission would be the most effective administrative solution to deliver EE and DSM programs.
- CAC recommends that the funding of EE and DSM programs be through the establishment of a public purpose fund established by the legislature, but be administered and governed by the Commission.

Cummins, Inc.

• Energy efficiency goals could be accelerated in Indiana if prescriptive and custom rebates for investment are available. Cummins provided the specific example of their Seymour Engine Plant, where they have significantly invested in regenerative dynamometers that reduced electricity consumption. Despite the

support Cummins has received from their utility provider (Duke Energy), Cummins has been able to receive a rebate for their investment because of the narrow definition of allowable technologies that currently qualify for energy efficiency incentives.

- Establish consistent, comprehensive, and mandatory regulatory standards for CHP/DG to connect to the electric grid;
- Require utilities to provide a fair and reasonable rate for stand-by service;
- Establish state net metering standards so excess electricity generated by DG/CHP can be sold back to an electric utility or third party;
- Allocate state funds to subsidize the installation of CHP systems in end-use sectors, including hospitals and local governments;
- Include CHP in any state Renewable Portfolio Standard (RPS);
- Enact State Feed-In tariff legislation (FiT) requiring utilities to pay for excess power from CHP systems at their marginal cost; and
- Establish incentive programs to offset initial cost of installing a CHP system including funding for technical assistance.

Dominion Voltage, Inc.

• Incorporates a program of voltage optimization ("VO") and advanced conservation voltage reduction ("CVR"). The comments go on to state that Indiana could find an additional 3-4% from combined employment of VO and advanced metering infrastructure ("AMI"). Additionally, Dominion states that "[...] where the distribution grid has not yet deployed AMI, the avoided energy costs associated with the lower voltage can help build the business case for the AMI adoption. In addition to the energy savings, VO would provide additional benefits from optimizing grid operations and improving operators' outage response, grid reliability, and voltage stabilization that over the longer term will support increasing installations of intermittent distribution generation resources."

Earth Charter Indiana, Inc. ("ECI")

• ECI states that one of its principles (specifically, "ECI Principle 7. – Adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well-being.") can provide valuable guidance to the Commission in developing its recommendations to the Governor.

E-mails/letters

• 38% of letters/e-mails received support neutral, non-profit 3rd party administrator of EE/DSM program.

Grasteu Associates, Inc.

• Points to 3rd party energy efficiency program management and coordination states, like Wisconsin, Vermont, much of the Pacific Northwest, and New Jersey.

Hoosier Environmental Council ("HEC")

• HEC provided suggestions for improvement. One suggestion offered was "[t]o address situations where the 'standard' program doesn't meet the needs of particular industrial customers [...]." One such method discussed is combined heat and power (CHP). HEC then goes on to state that a cost-benefit analysis of a DSM program invariably shows that a "properly structured program meets this test." HEC then cites the Cadmus evaluation of Focus on Energy's 2012 Calendar Year Programs.

■ Indiana Community Action Association ("IN-CAA")

- Instead of measuring realized savings of a DSM program on "deemed savings," instead measure it based on measured savings. IN-CAA states that historical studies show that engineering estimates are not reliable predictors of in-field savings.
- Proportioning investments at a home based upon the amount of energy being used from each energy source can increase efficiency for both a gas and an electric program.
- To the maximum extent possible, IN-CAA believes that any future DSM programs should be managed and delivered by Indiana based providers.
- Adding funds to this program will reduce the overhead and allow increased conservation that would not otherwise be possible.
- This office can effectively utilize CAA network to deliver any program that addressed residential energy efficiency.
- Utilize accredited training providers for all residential service delivery organizations.

■ Indiana Distributed Energy Alliance ("IndianaDG")

- Indiana should increase its deployment of renewable energy technologies to reduce and/or stabilize energy costs for Hoosiers.
- IndianaDG also believes that any EE/DSM program needs to be given adequate time to plan and be implemented. IndianaDG points to the electric IOU cases currently pending (44486, 44495, 44496, 43955, and 44497) before the IURC.

Comments of 5 IOU's ("IOU's)

• The utilities state that Indiana should focus on reasonably achievable and sustainable cost-effective EE programs that fit with the individual utilities integrated resource plan and needs, as opposed to imposing statewide energy savings goals across-the-board. The utilities also feel the state's EE programs have been effective in achieving energy savings on a cost-effective basis, but going forward, it will take significantly more resources to achieve increased EE savings. Much of the "low hanging fruit" has arguably already been harvested,

- plus EE is increasing due to changing building codes and appliance efficiency standards.
- The utilities also offer that Indiana should allow timely recovery of program costs, lost revenues, and performance incentives, in order to mitigate financial penalties a utility will suffer if it implements EE programs without these ratemaking mechanisms. In order to achieve the most cost-effective EE portfolios possible, appropriate ratemaking treatment, including program cost recovery, lost revenue recoveries, and performance incentives, are imperative.

Postcards

• The Commission received 550 pre-formatted postcards which all stated that Indiana should enact strong a strong EE policy that establishes a public purpose fund which ALL ratepayers contribute to. The postcards also stated that Indiana should enact strong a strong EE policy that establishes an independent, non-profit Statewide third party administrator to oversee those funds.

PQR Energy, LLC

- Recommended the following:
 - 1. Launch a self-sustaining Indiana Energy Efficiency Revolving Fund (IEERF) program focused on assisting public entities, colleges and universities, public schools, not-for-profit organizations, and potentially other large energy consumers.
 - 2. IEERF focus will be on larger projects.
 - 3. IEERF will be established under the general authority of the Commission with \$5-8 million initial capital.
 - 4. Provides proposed operating and disbursement procedures, as well as what PQR sees as key statutory, regulatory, and budgetary issues

■ The Alliance for Industrial Efficiency ("TAIE")

• Adopt policies that facilitate deployment of CHP and WHP in the state, including expanding net metering to include CHP, adopting a streamlined interconnection process, and eliminating any discriminatory standby rates.

Youth Opportunity Center, Inc. ("YOC")

- YOC proposes that a 50% tax credit be made available to donors who contribute
 money to a qualified not-for-profit Indiana agency that will use that money to
 invest in EE projects. YOC believes that the benefits of such a program will
 include:
 - 1. Decreased utility demand without additional fiscal or administrative burdens on utility providers;
 - 2. Prompting and encouraging not-for-profit agencies to undertake EE projects. Existing donors may ask the organization about planned EE projects, their interest prompted by the tax credit.

- 3. Agencies would receive an on-going economic benefit through reduced monthly operational costs; and
- 4. Projects undertaken would involve Indiana skilled-trades such as electricians, plumbers, roofers, HVAC, and others.

Issue 4: Public comments reflecting a thorough benefit-cost analysis of the cost impact to ratepayers of possible DSM programs.

Advanced Energy Economy ("AEE")

- AEE believes that the "cost effectiveness test is one of the most important tools to ensure Indiana's ratepayers are getting the best value for their investments in all resources, including energy efficiency." In light of SEA 340, AEE feels that the legislature is suggesting a move away from the Total Resource Cost (TRC) test and toward a cost-benefit test, such as the Program Administrator Cost (PAC) test or a Levelized Cost of Saved Energy (CSE) test. AEE would support such a suggestion and that the Commission adopt either the PAC or CSE cost-effectiveness tests for its DSM programs.
- AEE also recommends that the Commission should consider a "pathway toward market adoption for technologies that the commission determines may show technological promise but may not currently meet cost effectiveness tests" in order to promote continued innovation and investment in Indiana.
- Additionally, AEE recommends allocating costs based on "the proportion of benefits associated with each fuel type to maximize the deployment and investment in energy efficiency technologies that show impacts in both the electric and the gas sectors, and ensures an equitable distribution of cost among both electric and natural gas ratepayers.
- AEE also suggests that the Commission combine the utility's DSM program design with the utility's Integrated Resource Plan (IRP) in order to allow time for the programs to succeed while incorporating energy efficiency as a resource within the utility's overall strategic investment plan.

Citizens Action Coalition of Indiana

- According to CAC, a statewide EE and DSM program provides many benefits, to include equity, consistency, and economies of scale. It also can provide the ability to offer dual programs, where gas and electric costs are coordinated.
- According to CAC, all EE and DSM programs must be cost-effective at the portfolio level and evaluated by a 3rd party. Also, CAC asserts that the Indiana Technical Resource Manual should be the required benchmark utilized in such evaluations.

Dominion Voltage, Inc.

• Dominion also provides a case for cost/benefit of VO making the regulatory business case for AMI deployment. According to Dominion, prior CVR studies project expected values of 0.6% to 2.71% reduction in energy for every 1% reduction in average voltage. Notably, while VO technology is deployed on the grid and not on the other side of the meter, Dominion states that it "is the customer who directly benefits from the efficiency gains from VO [...]." Dominion concludes by stating that it encourages the Commission to include AMI-enabled VO in its recommendations to the Governor as a cost-effective DSM tool that should be a part of the State's EE strategy for the benefit of customers and the economic development of Indiana.

■ Earth Charter Indiana, Inc. ("ECI")

• ECI goes on to provide four reasons for an aggressive EE and DSM policy, specifically 1) that energy efficiency through DSM saves electric utility customers money, 2) that energy efficiency programs can create jobs, 3) that implementing energy efficiency measures will result in lower energy demand, thus reducing environmental compliance costs, and 4) the reduction of greenhouse gas emissions through energy efficiency measures helps mitigate global warming. ECI goes on to recommend that the Commission provide the Governor with an aggressive, yet attainable numeric saving goal that includes mandatory participation by all utilities and all customers and is administered by the Commission.

Grasteu Associates, Inc.

• Grasteu states that history shows the "clear social benefits of cost-effective energy efficiency programs."

Hoosier Environmental Council ("HEC")

- HEC states that ACEEE's review of decades of conserved energy costs shows a return at 3 cents nominal per kWh or less. HEC concludes, based on their data provided by ACEEE, that energy efficiency is an effective component of a resource plan and could be a "foundational building block for future plans."
- The economic benefits of energy efficiency policies, the possible "lag behind" Indiana could suffer by continuing to have a "carbon-centric energy infrastructure," and that this review by the state of its energy policy is particularly timely.

Indiana Community Action Association ("IN-CAA")

IN-CAA believes that targeting investment to the high energy consumers will
produce the most savings per dollar invested. It believes that these savings can be
realized with bill analysis and home size information. IN-CAA concludes that this
"recommendation is that investment in each home can be greater while fewer
households would be served."

Industrial Consumers

• Recovery of lost margins and shareholder incentives conflict with ratemaking principles and reduce efficiency savings.

Issue 5: Public comments regarding an opt-out whereby-large electricity consumers can decide not to participate in a DSM program.

Advanced Energy Economy ("AEE")

- AEE notes that allowing for an opt-out whereby large electricity consumers can decide not to participate in a DSM program is an approach that has been pursued by other states. AEE believes that "an opt-out provision should be structured to ensure those investments are being made [...]." According to AEE's comments, a large industrial consumer opt-out program should also be structured to both drive investment in EE and reward those already making investments. AEE provides for prongs that should be part of an opt out program adopted by the Commission, with those 4 prongs being 1) require a thorough audit of operations to identify and quantify the best investments the company can make in cost-effective energy efficiency improvements, 2) that companies should develop a Strategic Energy Management Plan (SEMP) to prioritize and plan for investment in improvements that show a five-year simple payback or less, 3) report to the Commission on their progress toward achieving the efficiency objectives and share with the utility the results of their investment, and 4) require verification of the results achieved by an unbiased third-party consistent with the treatment of utility funded programs."
- AEE notes an August 2013 study that recommended incorporating technologies such as LED lighting, heat pump water heaters, and advanced controls. The study also recommended utilizing alternative design concepts (i.e. instant rebates, upstream programs, etc.) and advanced financing programs (financing, partnering with utilities, private capital, etc.).

Benedict Inn and Conference Center

• Comment states that although they appreciate the costs to "large manufacturing businesses," they should not be exempt from any effort to conserve energy.

Broad Ripple Unlimited Group

• Any opt-outs for large electricity consumers must be fair and have other energy efficiency requirements associated with their ability to opt-out.

Circle Design Group, Inc. ("CDG")

• CDG states that "[a]ny future plans, or programs must be effective and fair to all citizens, and not just to industry [sic]."

Hoosier Environmental Council

• HEC believes the provision in SEA 340 allowing for opt-out by customers in excess of 1 mW demand should be reversed, in that it does not address the issue of how to fully tap the efficiency potential in this sector. HEC believes that the

logic used in SEA 340 is a misunderstanding of individual industrial firm economics vs. utility system economics. HEC then offers to solve the "payback gap" problem with a utility energy efficiency program.

IndianaDG

IndianaDG then suggests that Indiana move from declining block rates to
inclining or inverted rates. It also recommends that Indiana review the goals and
objectives of the Public Utilities Regulatory Policy Act of 1978 when devising a
policy for EE/DSM in Indiana. It then provides two articles regarding the
Minnesota Excel Energy program.

■ Comments of 5 IOU's

• The utilities also recommend allowing for an opt-out whereby large electricity customers can decide not to participate in a DSM program, such as that included in SEA 340.

Industrial Consumers

• The industrial opt-out properly recognizes the capability of large consumers to achieve efficiencies independently.

Nucor Steel

- Nucor strongly believes that utility-sponsored EE programs are not designed to meet the specific needs of a large industrial facility such as Nucor's, where EE improvements are intertwined with complex industrial processes and the facility's unique operational characteristics. Nucor asserts that the assumption that large customers like Nucor need or can cost effectively make use of utility sponsored programs to effectuate EE measures is incorrect. Instead, it believes that energy-intensive industries, utility-sponsored EE programs distort the already-existing market incentives, and reward companies whose EE efforts lag behind their competitors.
- Nucor feels that SEA 340 recognized that reality and a key provision in it allows qualified customers like Nucor to opt out from participating. Nucor asserts that it important to recognize the need for such an opt out provision, which will sunset on June 30, 2019. As a result, Nucor encourages the Commission to recommend removal of the sunset provision now set forth in Ind. Code § 8-1-8.5-9(f). Such an action would provide some measure of certainty for customers going forward, which Nucor states would allow for better capital planning processes.

■ The Alliance for Industrial Efficiency ("TAIE")

- Refrain from allowing industrial customers to opt-out;
- Authorize large customers to take part in self-direct programs and institute an
 adequate evaluation, measurement and verification and energy savings
 requirement. TAIE then comments on the benefits of CHP, why it feels that
 industrial opt-outs are disadvantageous, and why financial and utility barriers
 should be removed.